Notice of Allowability	Application No. 10/086,122	Applicant(s) HO, PURDY PINPIN
	Examiner Barry W Taylor	Art Unit 2643

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address--

All claims being allowable, PROSECUTION ON THE MERITS IS (OR REMAINS) CLOSED in this application. If not included herewith (or previously mailed), a Notice of Allowance (PTOL-85) or other appropriate communication will be mailed in due course. **THIS NOTICE OF ALLOWABILITY IS NOT A GRANT OF PATENT RIGHTS.** This application is subject to withdrawal from issue at the initiative of the Office or upon petition by the applicant. See 37 CFR 1.313 and MPEP 1308.

1. ☒ This communication is responsive to *11/10/04*.

2. ☒ The allowed claim(s) is/are *1-21*.

3. ☒ The drawings filed on *28 February 2002* are accepted by the Examiner.

4. ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).

    a) ☐ All   b) ☐ Some*   c) ☐ None of the:

        1. ☐ Certified copies of the priority documents have been received.

        2. ☐ Certified copies of the priority documents have been received in Application No. _____ .

        3. ☐ Copies of the certified copies of the priority documents have been received in this national stage application from the International Bureau (PCT Rule 17.2(a)).

    * Certified copies not received: _____ .

Applicant has THREE MONTHS FROM THE "MAILING DATE" of this communication to file a reply complying with the requirements noted below. Failure to timely comply will result in ABANDONMENT of this application. **THIS THREE-MONTH PERIOD IS NOT EXTENDABLE.**

5. ☐ A SUBSTITUTE OATH OR DECLARATION must be submitted. Note the attached EXAMINER'S AMENDMENT or NOTICE OF INFORMAL PATENT APPLICATION (PTO-152) which gives reason(s) why the oath or declaration is deficient.

6. ☐ CORRECTED DRAWINGS (as "replacement sheets") must be submitted.

    (a) ☐ including changes required by the Notice of Draftsperson's Patent Drawing Review (PTO-948) attached

        1) ☐ hereto or 2) ☐ to Paper No./Mail Date _____ .

    (b) ☐ including changes required by the attached Examiner's Amendment / Comment or in the Office action of Paper No./Mail Date _____ .

    Identifying indicia such as the application number (see 37 CFR 1.84(c)) should be written on the drawings in the front (not the back) of each sheet. Replacement sheet(s) should be labeled as such in the header according to 37 CFR 1.121(d).

7. ☐ DEPOSIT OF and/or INFORMATION about the deposit of BIOLOGICAL MATERIAL must be submitted. Note the attached Examiner's comment regarding REQUIREMENT FOR THE DEPOSIT OF BIOLOGICAL MATERIAL.

Attachment(s)

1. ☒ Notice of References Cited (PTO-892)

2. ☐ Notice of Draftperson's Patent Drawing Review (PTO-948)

3. ☐ Information Disclosure Statements (PTO-1449 or PTO/SB/08), Paper No./Mail Date _____

4. ☐ Examiner's Comment Regarding Requirement for Deposit of Biological Material

5. ☐ Notice of Informal Patent Application (PTO-152)

6. ☐ Interview Summary (PTO-413), Paper No./Mail Date _____ .

7. ☐ Examiner's Amendment/Comment

8. ☒ Examiner's Statement of Reasons for Allowance

9. ☐ Other _____ .

GEORGE ENG
PRIMARY EXAMINER

DETAILED ACTION

Allowable Subject Matter

1.   Claims 1-21 are allowed.

2.   The following is an examiner's statement of reasons for allowance.

Prior art of record fails to teach or fairly suggest a method and system trained to

identify a handset used over a communication network, comprising: transforming

training data for a plurality of handset types into a composite dataset including training

feature vectors; configuring a plurality of classifiers based on the composite dataset,

including: associating one of the classifiers with one of the handset types not previously

associated with any other of the classifiers; training the classifier to recognize, within the

composite dataset, a first classs of training feature vectors related to the associated

handset type, and a second class of training feature vectors related to other handset

types; repeating for at least another of the classifiers and storing a result to be used to

correlate an unidentified handset's test feature vectors against the trained classifiers,

select one of the calassifiers exhibiting the greatest correlation and determining the

handset type associated with the selected classifier as recited in independent claims 1,

4, 9, 10, 13, 14, 15, 16, 17, 18, 19, 20 and 21 and depicted in figure 1.

Prior art of record (5,950,157) Heck et al teaches method and system for training

a system to identify a handset (abstract and figure 2). However, Heck fails to teach a

system that requires, inter alia, a speaker model that transforms training data into a

composite dataset including training feature vectors (see Applicant's remark at the

bottom of page 3, paper dated 6/9/2004 and Applicant's remark at the bottom of page 3,
paper dated 11/04/2004).

Prior art of record (6,411,930) Burges teaches teaches speaker identification
using a signal GMM (abstract, figure 1, col. 2 lines 1-21). Burges teaches training
feature vectors (col. 3 line 47 – col. 4 line 62, col. 8 lines 5-67, col. 10 line 40). Burges
extends the GMM model by using Support Vector Machine (col. 4 line 63 – col. 9 line
58). In other words, using SVM allows for speaker to be classified from all other
speakers (col. 7 lines 4-65). However, Burges fails to teach a system that requires,
inter alia, a speaker model that transforms training data into a composite dataset
including training feature vectors (see Applicant's remark at the bottom of page 3, paper
dated 6/9/2004 and Applicant's remark at the bottom of page 3, paper dated
11/04/2004).

Prior art of record (5,970,446) Goldberg et al teaches an apparatus and method
for the robust recognition of speech during a call in a noisy environment wherein
specific background noise models (i.e. different types of phones used) are created. For
example, Goldberg shows plurality of models (i.e. different types of phones being used-
-see microphones 1 to n+1 figure 1 used as modeling means). Goldberg further shows
that if model undetermined, then user asked to confirm model type (see column 5
wherein system prompts user by asking "Is this correct?"). However, Goldberg et al
fails to teach a system that requires, inter alia, a speaker model that transforms training
data into a composite dataset including training feature vectors (see Applicant's remark

at the bottom of page 3, paper dated 6/9/2004 and Applicant's remark at the bottom of

page 3, paper dated 11/04/2004).

Any comments considered necessary by applicant must be submitted no later

than the payment of the issue fee and, to avoid processing delays, should preferably

accompany the issue fee. Such submissions should be clearly labeled "Comments on

Statement of Reasons for Allowance."

3.   3Any inquiry concerning this communication or earlier communications from the
examiner should be directed to Barry W. Taylor, telephone number (571) 272-7509, who
is available Monday-Friday, 8am to 5pm.
        If attempts to reach the examiner by telephone are unsuccessful, the examiner's
supervisor, Curtis Kuntz, can be reached at (571) 272-7499. The facsimile phone number
for this group is (703) 872-9306.
        Any inquiry of a general nature or relating to the status of this application or
proceeding should be directed to the Group 2600 receptionist whose telephone number is
(571) 272-2600, the 2600 Customer Service telephone number is (571) 272-2600.
        Information regarding the status of an application may be obtained from the
Patent Application Information Retrieval (PAIR) system. Status information for
published applications may be obtained from either Private PAIR or Public PAIR. Status
information for unpublished applications is available through Private PAIR only. For
more information about the PAIR system, see http://pair-direct.uspto.gov. Should you
have questions on access to the Private PAIR system, contact the Electronic Business
Center (EBC) at 866-217-9197 (toll-free).

Barry W. Taylor
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Technology Center 2600
Art Unit 2643

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PRIMARY EXAMINER